based on approximate elements computed by Mr. GRIGG, and the comet was looked for here on several nights without success. This object has been designated Comet *c* 1902.

The last comet of the year was discovered by M. GIACOBINI at Nice on December 2, 1902. The telegram announcing discovery reached us on December 4th, but clouds prevented observations until the following night. Since then measures have been made on a number of nights, the last being secured on January 7th. The comet is very small,—only 2′ or 3′ in diameter,—and quite faint, but possesses a well-defined nucleus of about the same brightness as a 13½-magnitude star. Its apparent motion is very slow, for it is still several months distant from perihelion, and only half a dozen known comets have a perihelion distance as great as that assigned to this one by the preliminary elements. For this reason it is not likely to be at all conspicuous, even when observed with a good telescope; but, from the situation of its apparent path through the sky, it is probable that its motion can be observed for a long time and data secured for an accurate orbit.

R. G. AITKEN.

Jan. 10, 1903.

THE SPECTRUM OF THE FAINT NEBULOSITY AROUND *NOVA PERSEI*.*

The anomalous changes which have been observed in the faint nebulosity surrounding *Nova Persei* made it highly desirable to obtain as great a variety of evidence as possible, particularly in the way of physical observations. In March, 1902, observations were secured with the Crossley reflector tending to show that there was little or no polarization in the light from the brightest of the condensations then visible.

The nebulosity was too faint to attempt any spectroscopic observations with the apparatus available. A slit-spectrograph having a quartz prism and quartz lenses was designed especially for this problem, to be used in connection with the Crossley reflector. The dispersion was purposely made very small.

A negative was secured on the nights of October 31st and November 1st, 2d, and 4th, with a total exposure of over 34 hours.

* Abstract of L. O. *Bulletin*, No. —.

The slit of the spectrograph was placed across the brightest portion of Condensation D.

The resulting negative showed a very faint spectrum, which, after careful consideration and some experiments, was deemed to be that of the nebulosity. So far as can be told from such small dispersion and intensity, the spectrum is continuous, with the greater portion of the light condensed in a band between H_β and H_γ. This band is strongest just above H_β and from this point fades gradually until it is entirely lost in the H and K calcium region. Beyond this point, up in the ultra-violet region, there is a very slight increase of strength again.

It is suspected that in one or two cases there may be traces of bright lines, but the whole spectrum is so faint as to preclude any definite deduction on this point.

The above observation shows that the spectrum of this mass of nebulosity is not the ordinary bright-line spectrum of the nebulæ. The spectrum observed may correspond to that of the *Nova* at some epoch in its recent history, although that seems doubtful, from the fact that since July, 1901, (at least,) practically all the light of the *Nova* has been confined to a few lines. The faintness of the spectrum of the nebulosity makes it difficult to decide this point. C. D. PERRINE.

1903, January 13.

RED SUNSETS AT MT. HAMILTON.

Since the outburst of Mont Pelée in May last, the sunsets have been watched to see if there would be any such effects as were observed after the Krakatoa eruption of 1883. An augmentation of color was suspected in August and September, but as there was considerable smoke from forest fires in the lower atmosphere at that time, it was thought that that might be the cause. For several weeks past the atmosphere has been very transparent, owing to frequent rains and fogs, and favorable, therefore, for the detection of any unusual color due to dust in the upper atmosphere.

On many cloudless evenings a very perceptible deepening of color has been observed. The band near the horizon has been of a very deep crimson, and some color has usually been visible almost to the zenith. The tints are very clear and pure